

SEQUENCE LISTING

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<120> Novel Serine Protease
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<210> 3

<211> 2614

<212> DNA

<213> Mouse

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cgggggctgg gacagcaggg cggcgcgcg agcgtgggag ggggctctag gactctgccg 180
gccccgcccc gccccctccg cggggacctg gagccagca tggaccacac tcggcgccgc 240
agcc atg gcg etc gcc cgc tgc gtg ctg gct gtg att tta ggg gca ctg 289

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M t Ala Leu Ala Arg Cys Val Leu Ala Val Ile Leu Gly Ala Leu.

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tct gta gtg gcc cgc gct gat ccg gtc tgc cgc tct ccc ctt cac cgc				337
Ser Val Val Ala Arg Ala Asp Pro Val Ser Arg Ser Pro Leu His Arg				
20	25	30		
ccg cat cgc too cca ccg cgt tcc caa cac gcg cac tac ctt ccc agc				385
Pro His Pro Ser Pro Pro Arg Ser Gln His Ala His Tyr Leu Pro Ser				
35	40	45		
tgc cgg cgg cca ccc agg acc ccg cgc ttc ccg etc ccg ctg cgg atc				433
Ser Arg Arg Pro Pro Arg Thr Pro Arg Phe Pro Leu Pro Leu Arg Ile				
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ccc gct gcc cag cgc ccg cag gtc cto agc acc ggg cac acg ccc ccg				481
Pro Ala Ala Gln Arg Pro Gln Val Leu Ser Thr Gly His Thr Pro Pro				
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acg att cca cgc cgc tgc ggg gca gga gag tgc tgg ggc aat gcc acc				529
Thr Ile Pro Arg Arg Cys Gly Ala Gly Glu Ser Trp Gly Asn Ala Thr				
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aac ctc ggc gtc ccg tgt cta cac tgg gac gag gtg ccg ccc ttc ctg				577
Asn Leu Gly Val Pro Cys Leu His Trp Asp Glu Val Pro Pro Phe Leu				
100	105	110		
gag cgg tgc ccc ccg gcc agt tgg gct gag ctg cga ggg cag ccg cac				625
Glu Arg Ser Pro Pro Ala Ser Trp Ala Glu Leu Arg Gly Gln Pro His				
115	120	125		
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Asn Phe Cys Arg Ser Pro Asp Gly Ser Gly Arg Pro Trp Cys Phe Tyr				
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Arg Asn Ala Gln Gly Lys Val Asp Trp Gly Tyr Cys Asp Cys Gly Gln				
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Gly Pro Ala Leu Pro Val Ile Arg Leu Val Gly Gly Asn Ser Gly His				
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Glu Gly Arg Val Glu Leu Tyr His Ala Gly Gln Trp Gly Thr Ile Cys				
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Gly Ser Gly Pro Ile Leu Leu Asp Glu Val Arg Cys Thr Gly Asn Glu	
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Leu Ser Ile Glu Gln Cys Pro Lys Ser Ser Trp Gly Glu His Asn Cys	
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Gly His Lys Glu Asp Ala Gly Val Ser Cys Val Pro Leu Thr Asp Gly	
260 265 270	
gtc atc aga ctg gca gga gga aaa agt acc cat gaa ggt cgc ctg gag	1105
Val Ile Arg Leu Ala Gly Gly Lys Ser Thr His Glu Gly Arg Leu Glu	
275 280 285	
gtc tac tac aag ggg cag tgg ggg aca gtc tgt gat gat ggc tgg act	1153
Val Tyr Tyr Lys Gly Gln Trp Gly Thr Val Cys Asp Asp Gly Trp Thr	
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gag atg aac aca tac gtg gct tgt cga ctg ctg gga ttt aaa tac ggc	1201
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Lys Gln Ser Ser Val Asn His Phe Asp Gly Ser Asn Arg Pro Ile Trp	
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Leu Asp Asp Val Ser Cys Ser Gly Lys Glu Val Ser Phe Ile Gln Cys	
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Gly Leu Thr Cys Tyr Pro Asp Ser Asp Gly His Arg Leu Ser Pro Gly	
370 375 380	
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Phe Pro Ile Arg Leu Val Asp Gly Glu Asn Lys Lys Glu Gly Arg Val	
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Glu Val Phe Val Asn Gly Gln Trp Gly Thr Ile Cys Asp Asp Gly Trp	
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acc gat aag cat gca gct gtg atc tgc cgg cag ctt ggc tat aag ggt	1537
Thr Asp Lys His Ala Ala Val Ile Cys Arg Gln Leu Gly Tyr Lys Gly	
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cct gcc aga gca agg act atg gct tat ttt ggg gaa gga aaa ggc ccc	1585
Pro Ala Arg Ala Arg Thr Met Ala Tyr Phe Gly Glu Gly Lys Gly Pro	
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atc cac atg gat aat gtg aag tgc aca gga aat gag aag gcc ctg gct	1633
Ile His Met Asp Asn Val Lys Cys Thr Gly Asn Glu Lys Ala Leu Ala	
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Asp Cys Val Lys Gln Asp Ile Gly Arg His Asn Cys Arg His Ser Glu	
465 470 475	
gat gca gga gtc atc tgt gac tat tta gag aag aaa gca tca agt agt	1729
Asp Ala Gly Val Ile Cys Asp Tyr Leu Glu Lys Lys Ala Ser Ser Ser	
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Gly Asn Lys Glu Met Leu Ser Ser Gly Cys Gly Leu Arg Leu Leu His	
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515 520 525	
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Trp Pro Trp Gln Ala Ser Leu Arg Leu Arg Ser Ala His Gly Asp Gly	
530 535 540	
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Arg Leu Leu Cys Gly Ala Thr Leu Leu Ser Ser Cys Trp Val Leu Thr	
545 550 555	
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Ala Ala His Cys Phe Lys Arg Tyr Gly Asn Asn Ser Arg Ser Tyr Ala	
560 565 570 575	
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Val Arg Val Gly Asp Tyr His Thr Leu Val Pro Glu Glu Phe Glu Gln	
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 Arg Ser Asp Tyr Asp Ile Ala Leu Val Arg Leu Gln Gly Pro Gly Glu
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caa tgt gcc aga cta agc acc cac gtt ttg cca gcc tgt tta cct cta 2161
 Gln Cys Ala Arg Leu Ser Thr His Val Leu Pro Ala Cys Leu Pro Leu
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tgg aga gag agg cca cag aaa aca gcc tcc aac tgt cac ata aca gga 2209
 Trp Arg Glu Arg Pro Gln Lys Thr Ala Ser Asn Cys His Ile Thr Gly
 640 645 650 655

tgg gga gac aca ggt cgt gcc tac tca aga act cta caa caa gct gct 2257
 Trp Gly Asp Thr Gly Arg Ala Tyr Ser Arg Thr Leu Gln Gln Ala Ala
 660 665 670

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 Val Pro Leu Leu Pro Lys Arg Phe Cys Lys Glu Arg Tyr Lys Gly Leu
 675 680 685

ttt act ggg aga atg ctc tgt gct ggg aac ctc caa gaa gac aac cgt 2353
 Phe Thr Gly Arg Met Leu Cys Ala Gly Asn Leu Gln Glu Asp Asn Arg
 690 695 700

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 Pro Asp Glu Ser Trp Val Val Tyr Gly Val Thr Ser Trp Gly Tyr Gly
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tgt gga gtc aaa gac act cct gga gtt tat acc aga gtc ccc gcc ttt 2497
 Cys Gly Val Lys Asp Thr Pro Gly Val Tyr Thr Arg Val Pro Ala Phe
 740 745 750

gta cct tgg ata aaa agt gtc acc agt ctg taacttatgg aaagctcaag 2547
 Val Pro Trp Ile Lys Ser Val Thr Ser Leu
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His Pro Ser Pro Pro Arg Ser Gln His Ala His Tyr Leu Pro Ser Ser
35 40 45
Arg Arg Pro Pro Arg Thr Pro Arg Phe Pro Leu Pro Leu Arg Ile Pro
50 55 60
Ala Ala Gln Arg Pro Gln Val Leu Ser Thr Gly His Thr Pro Pro Thr
65 70 75 80
Ile Pro Arg Arg Cys Gly Ala Gly Glu Ser Trp Gly Asn Ala Thr Asn
85 90 95
Leu Gly Val Pro Cys Leu His Trp Asp Glu Val Pro Pro Phe Leu Glu
100 105 110
Arg Ser Pro Pro Ala Ser Trp Ala Glu Leu Arg Gly Gln Pro His Asn
115 120 125
Phe Cys Arg Ser Pro Asp Gly Ser Gly Arg Pro Trp Cys Phe Tyr Arg
130 135 140
Asn Ala Gln Gly Lys Val Asp Trp Gly Tyr Cys Asp Cys Gly Gln Gly
145 150 155 160
Pro Ala Leu Pro Val Ile Arg Leu Val Gly Gly Asn Ser Gly His Glu
165 170 175
Gly Arg Val Glu Leu Tyr His Ala Gly Gln Trp Gly Thr Ile Cys Asp
180 185 190
Asp Gln Trp Asp Asn Ala Asp Ala Asp Val Ile Cys Arg Gln Leu Gly
195 200 205
Leu Ser Gly Ile Ala Lys Ala Trp His Gln Ala His Phe Gly Glu Gly
210 215 220
Ser Gly Pro Ile Leu Leu Asp Glu Val Arg Cys Thr Gly Asn Glu Leu
225 230 235 240
Ser Ile Glu Gln Cys Pro Lys Ser Ser Trp Gly Glu His Asn Cys Gly
245 250 255

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His	Lys	Glu	Asp	Ala	Gly	Val	Pro	Cys	Val	Pro	Leu	Asp	Gly	Val	260	265	270	
Ile	Arg	Leu	Ala	Gly	Gly	Lys	Ser	Thr	His	Glu	Gly	Arg	Leu	Glu	Val	275	280	285
Tyr	Tyr	Lys	Gly	Gln	Trp	Gly	Thr	Val	Cys	Asp	Asp	Gly	Trp	Thr	Glu	290	295	300
Met	Asn	Thr	Tyr	Val	Ala	Cys	Arg	Leu	Leu	Gly	Phe	Lys	Tyr	Gly	Lys	305	310	315
Gln	Ser	Ser	Val	Asn	His	Phe	Asp	Gly	Ser	Asn	Arg	Pro	Ile	Trp	Leu	325	330	335
Asp	Asp	Val	Ser	Cys	Ser	Gly	Lys	Glu	Val	Ser	Phe	Ile	Gln	Cys	Ser	340	345	350
Arg	Arg	Gln	Trp	Gly	Arg	His	Asp	Cys	Ser	His	Arg	Glu	Asp	Val	Gly	355	360	365
Leu	Thr	Cys	Tyr	Pro	Asp	Ser	Asp	Gly	His	Arg	Leu	Ser	Pro	Gly	Phe	370	375	380
Pro	Ile	Arg	Leu	Val	Asp	Gly	Glu	Asn	Lys	Lys	Glu	Gly	Arg	Val	Glu	385	390	395
Val	Phe	Val	Asn	Gly	Gln	Trp	Gly	Thr	Ile	Cys	Asp	Asp	Gly	Trp	Thr	405	410	415
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Ala	Arg	Ala	Arg	Thr	Met	Ala	Tyr	Phe	Gly	Glu	Gly	Lys	Gly	Pro	Ile	435	440	445
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Cys	Val	Lys	Gln	Asp	Ile	Gly	Arg	His	Asn	Cys	Arg	His	Ser	Glu	Asp	465	470	475
Ala	Gly	Val	Ile	Cys	Asp	Tyr	Leu	Glu	Lys	Lys	Ala	Ser	Ser	Ser	Gly	485	490	495
Asn	Lys	Glu	Met	Leu	Ser	Ser	Gly	Cys	Gly	Leu	Arg	Leu	Leu	His	Arg	500	505	510
Arg	Gln	Lys	Arg	Ile	Ile	Gly	Gly	Asn	Asn	Ser	Leu	Arg	Gly	Ala	Trp	515	520	525
Pro	Trp	Gln	Ala	Ser	Leu	Arg	Leu	Arg	Ser	Ala	His	Gly	Asp	Gly	Arg	530	535	540
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Arg Val Gly Asp Tyr His Thr Leu Val Pro Glu Glu Phe Glu Gln Glu
580 585 590
Ile Gly Val Gln Gln Ile Val Ile His Arg Asn Tyr Arg Pro Asp Arg
595 600 605
Ser Asp Tyr Asp Ile Ala Leu Val Arg Leu Gln Gly Pro Gly Glu Gln
610 615 620
Cys Ala Arg Leu Ser Thr His Val Leu Pro Ala Cys Leu Pro Leu Trp
625 630 635 640
Arg Glu Arg Pro Gln Lys Thr Ala Ser Asn Cys His Ile Thr Gly Trp
645 650 655
Gly Asp Thr Gly Arg Ala Tyr Ser Arg Thr Leu Gln Gln Ala Ala Val
660 665 670
Pro Leu Leu Pro Lys Arg Phe Cys Lys Glu Arg Tyr Lys Gly Leu Phe
675 680 685
Thr Gly Arg Met Leu Cys Ala Gly Asn Leu Gln Glu Asp Asn Arg Val
690 695 700
Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Met Cys Glu Lys Pro
705 710 715 720
Asp Glu Ser Trp Val Val Tyr Gly Val Thr Ser Trp Gly Tyr Gly Cys
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Pro Arg Pro His Pro Trp Gly Cys Pro Ala Gly Glu Pro Trp Val Ser	
35 40 45	
gtg acg gac ttc ggc gcc ccg tgt ctg cgg tgg gcg gag gtg cca ccc	192
Val Thr Asp Phe Gly Ala Pro Cys Leu Arg Trp Ala Glu Val Pro Pro	
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ttc ctg gag cgg tcg ccc cca gcg agc tgg gct cag ctg cga gga cag	240
Phe Leu Glu Arg Ser Pro Pro Ala Ser Trp Ala Gln Leu Arg Gly Gln	
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Phe Tyr Gly Asp Ala Arg Gly Lys Val Asp Trp Gly Tyr Cys Asp Cys	
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Arg His Gly Ser Val Arg Leu Arg Gly Gly Lys Asn Glu Phe Glu Gly	
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Thr Val Glu Val Tyr Ala Ser Gly Val Trp Gly Thr Val Cys Ser Ser	
130 135 140	
cac tgg gat gat tct gat gca tca gtc att tgt cac cag ctg cag ctg	480
His Trp Asp Asp Ser Asp Ala Ser Val Ile Cys His Gln Leu Gln Leu	
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Gly Gly Lys Gly Ile Ala Lys Gln Thr Pro Phe Ser Gly Leu Gly Leu	
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Ile Pro Ile Tyr Trp Ser Asn Val Arg Cys Arg Gly Asp Glu Glu Asn	
180 185 190	
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Ile Leu Leu Cys Glu Lys Asp Ile Trp Gln Gly Gly Val Cys Pro Gln	
195 200 205	

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Lys Met Ala Ala Ala Val Thr Cys Ser Phe Ser His Gly Pro Thr Phe	
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Pro Ile Ile Arg Leu Ala Gly Gly Ser Ser Val His Glu Gly Arg Val	
225 230 235 240	
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Glu Leu Tyr His Ala Gly Gln Trp Gly Thr Val Cys Asp Asp Gln Trp	
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Asp Asp Ala Asp Ala Glu Val Ile Cys Arg Gln Leu Gly Leu Ser Gly	
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Ile Ala Lys Ala Trp His Gln Ala Tyr Phe Gly Glu Gly Ser Gly Pro	
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Val Met Leu Asp Glu Val Arg Cys Thr Gly Asn Glu Leu Ser Ile Glu	
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Gln Cys Pro Lys Ser Ser Trp Gly Glu His Asn Cys Gly His Lys Glu	
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001220 2162160

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Trp Gly Arg His Asp Cys Ser His Arg Glu Asp Val Ser Ile Ala Cys	
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Tyr Pro Gly Gly Glu Gly His Arg Leu Ser Leu Gly Phe Pro Val Arg	
435 440 445	
ctg atg gat gga gaa aat aag aaa gaa gga cga gtg gag gtt ttt atc	1392
Leu Met Asp Gly Glu Asn Lys Lys Glu Gly Arg Val Glu Val Phe Ile	
450 455 460	
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Arg Thr Met Ala Tyr Phe Gly Glu Gly Lys Gly Pro Ile His Val Asp	
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Asn Val Lys Cys Thr Gly Asn Glu Arg Ser Leu Ala Asp Cys Ile Lys	
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Gln Asp Ile Gly Arg His Asn Cys Arg His Ser Glu Asp Ala Gly Val	
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Arg Ile Ile Gly Gly Lys Asn Ser Leu Arg Gly Gly Trp Pro Trp Gln	
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Phe Lys Arg Tyr Gly Asn Ser Thr Arg Ser Tyr Ala Val Arg Val Gly	
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Asp Tyr His Thr Leu Val Pro Glu Glu Phe Glu Glu Glu Ile Gly Val	
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caa cag att gtg att cat cgg gag tat cga ccc gac cgc agt gat tat	2016
Gln Gln Ile Val Ile His Arg Glu Tyr Arg Pro Asp Arg Ser Asp Tyr	
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Phe Ser Ser His Val Leu Pro Ala Cys Leu Pro Leu Trp Arg Glu Arg	
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Pro Gln Lys Thr Ala Ser Asn Cys Tyr Ile Thr Gly Trp Gly Asp Thr	
705 710 715 720	
gga cga gcc tat tca aga aca cta caa caa gca gcc att ccc tta ctt	2208
Gly Arg Ala Tyr Ser Arg Thr Leu Gln Gln Ala Ala Ile Pro Leu Leu	
725 730 735	
cct aaa agg ttt tgt gaa gaa cgt tat aag ggt cgg ttt aca ggg aga	2256
Pro Lys Arg Phe Cys Glu Glu Arg Tyr Lys Gly Arg Phe Thr Gly Arg	
740 745 750	
atg ctt tgt gct gga aac ctc cat gaa cac aaa cgc gtg gac agc tgc	2304
Met Leu Cys Ala Gly Asn Leu His Glu His Lys Arg Val Asp Ser Cys	
755 760 765	
cag gga gac agc gga gga cca ctc atg tgt gaa cgg ccc gga gag agc	2352
Gln Gly Asp Ser Gly Gly Pro Leu Met Cys Glu Arg Pro Gly Glu Ser	
770 775 780	

tgg gtg gtg tat ggg gtg acc tcc tgg ggg tat ggc tgt gga gtc aag 2400
 Trp Val Val Tyr Gly Val Thr Ser Trp Gly Tyr Gly Cys Gly Val Lys
 785 790 795 800
 gat tct cct ggt gtt tat acc aaa gtc tca gcc ttt gta cct tgg ata 2448
 Asp Ser Pro Gly Val Tyr Thr Lys Val Ser Ala Phe Val Pro Trp Ile
 805 810 815
 aaa agt gtc acc aaa ctg taattcttca tggaaacttc aaagcagcat 2496
 Lys Ser Val Thr Lys Leu
 820
 ttaaacaast ggaaaacttt gaacccccac tattagcact cagcagagat gacaacaaac 2556
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 Arg Ala Leu Pro Ala Gln Arg Pro His Ala Leu Gln Ala Gly His Thr
 20 25 30
 Pro Arg Pro His Pro Trp Gly Cys Pro Ala Gly Glu Pro Trp Val Ser
 35 40 45
 Val Thr Asp Phe Gly Ala Pro Cys Leu Arg Trp Ala Glu Val Pro Pro
 50 55 60
 Phe Leu Glu Arg Ser Pro Pro Ala Ser Trp Ala Gln Leu Arg Gly Gln
 65 70 75 80
 Arg His Asn Phe Cys Arg Ser Pro Asp Gly Ala Gly Arg Pro Trp Cys
 85 90 95
 Phe Tyr Gly Asp Ala Arg Gly Lys Val Asp Trp Gly Tyr Cys Asp Cys
 100 105 110
 Arg His Gly Ser Val Arg Leu Arg Gly Gly Lys Asn Glu Phe Glu Gly
 115 120 125
 Thr Val Glu Val Tyr Ala Ser Gly Val Trp Gly Thr Val Cys Ser Ser
 130 135 140

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His	Trp	Asp	Asp	Ser	Asp	Ala	S	r	Val	Ile	Cys	His	Gln	Leu	Gln	Leu
145					150						155					160
Gly	Gly	Lys	Gly	Ile	Ala	Lys	Gln	Thr	Pro	Phe	Ser	Gly	Leu	Gly	Leu	
				165					170						175	
Ile	Pro	Ile	Tyr	Trp	Ser	Asn	Val	Arg	Cys	Arg	Gly	Asp	Glu	Glu	Asn	
			180					185					190			
Ile	Leu	Leu	Cys	Glu	Lys	Asp	Ile	Trp	Gln	Gly	Gly	Val	Cys	Pro	Gln	
	195						200					205				
Lys	Met	Ala	Ala	Ala	Val	Thr	Cys	Ser	Phe	Ser	His	Gly	Pro	Thr	Phe	
	210					215					220					
Pro	Ile	Ile	Arg	Leu	Ala	Gly	Gly	Ser	Ser	Val	His	Glu	Gly	Arg	Val	
225				230						235					240	
Glu	Leu	Tyr	His	Ala	Gly	Gln	Trp	Gly	Thr	Val	Cys	Asp	Asp	Gln	Trp	
			245						250					255		
Asp	Asp	Ala	Asp	Ala	Glu	Val	Ile	Cys	Arg	Gln	Leu	Gly	Leu	Ser	Gly	
		260					265						270			
Ile	Ala	Lys	Ala	Trp	His	Gln	Ala	Tyr	Phe	Gly	Glu	Gly	Ser	Gly	Pro	
	275					280						285				
Val	Met	Leu	Asp	Glu	Val	Arg	Cys	Thr	Gly	Asn	Glu	Leu	Ser	Ile	Glu	
	290					295					300					
Gln	Cys	Pro	Lys	Ser	Ser	Trp	Gly	Glu	His	Asn	Cys	Gly	His	Lys	Glu	
305				310						315					320	
Asp	Ala	Gly	Val	Ser	Cys	Thr	Pro	Leu	Thr	Asp	Gly	Val	Ile	Arg	Leu	
			325						330					335		
Ala	Gly	Gly	Lys	Gly	Ser	His	Glu	Gly	Arg	Leu	Glu	Val	Tyr	Tyr	Arg	
		340						345					350			
Gly	Gln	Trp	Gly	Thr	Val	Cys	Asp	Asp	Gly	Trp	Thr	Glu	Leu	Asn	Thr	
	355					360						365				
Tyr	Val	Val	Cys	Arg	Gln	Leu	Gly	Phe	Lys	Tyr	Gly	Lys	Gln	Ala	Ser	
	370					375					380					
Ala	Asn	His	Phe	Glu	Glu	Ser	Thr	Gly	Pro	Ile	Trp	Leu	Asp	Asp	Val	
385				390						395					400	
Ser	Cys	Ser	Gly	Lys	Glu	Thr	Arg	Phe	Leu	Gln	Cys	Ser	Arg	Arg	Gln	
			405						410					415		
Trp	Gly	Arg	His	Asp	Cys	Ser	His	Arg	Glu	Asp	Val	Ser	Ile	Ala	Cys	
		420						425					430			
Tyr	Pro	Gly	Gly	Glu	Gly	His	Arg	Leu	Ser	Leu	Gly	Phe	Pro	Val	Arg	
	435					440						445				

Leu Met Asp Gly Glu Asn Lys Lys Glu Gly Arg Val Glu Val Phe Ile
 450 455 460
 Asn Gly Gln Trp Gly Thr Ile Cys Asp Asp Gly Trp Thr Asp Lys Asp
 465 470 475 480
 Ala Ala Val Ile Cys Arg Gln Leu Gly Tyr Lys Gly Pro Ala Arg Ala
 485 490 495
 Arg Thr Met Ala Tyr Phe Gly Glu Gly Lys Gly Pro Ile His Val Asp
 500 505 510
 Asn Val Lys Cys Thr Gly Asn Glu Arg Ser Leu Ala Asp Cys Ile Lys
 515 520 525
 Gln Asp Ile Gly Arg His Asn Cys Arg His Ser Glu Asp Ala Gly Val
 530 535 540
 Ile Cys Asp Tyr Phe Gly Lys Lys Ala Ser Gly Asn Ser Asn Lys Glu
 545 550 555 560
 Ser Leu Ser Ser Val Cys Gly Leu Arg Leu Leu His Arg Arg Gln Lys
 565 570 575
 Arg Ile Ile Gly Gly Lys Asn Ser Leu Arg Gly Gly Trp Pro Trp Gln
 580 585 590
 Val Ser Leu Arg Leu Lys Ser Ser His Gly Asp Gly Arg Leu Leu Cys
 595 600 605
 Gly Ala Thr Leu Leu Ser Ser Cys Trp Val Leu Thr Ala Ala His Cys
 610 615 620
 Phe Lys Arg Tyr Gly Asn Ser Thr Arg Ser Tyr Ala Val Arg Val Gly
 625 630 635 640
 Asp Tyr His Thr Leu Val Pro Glu Glu Phe Glu Glu Glu Ile Gly Val
 645 650 655
 Gln Gln Ile Val Ile His Arg Glu Tyr Arg Pro Asp Arg Ser Asp Tyr
 660 665 670
 Asp Ile Ala Leu Val Arg Leu Gln Gly Pro Glu Glu Gln Cys Ala Arg
 675 680 685
 Phe Ser Ser His Val Leu Pro Ala Cys Leu Pro Leu Trp Arg Glu Arg
 690 695 700
 Pro Gln Lys Thr Ala Ser Asn Cys Tyr Ile Thr Gly Trp Gly Asp Thr
 705 710 715 720
 Gly Arg Ala Tyr Ser Arg Thr Leu Gln Gln Ala Ala Ile Pro Leu Leu
 725 730 735
 Pro Lys Arg Phe Cys Glu Glu Arg Tyr Lys Gly Arg Phe Thr Gly Arg
 740 745 750

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Met Leu Cys Ala Gly Asn Leu His Glu His Lys Arg Val Asp Ser Cys
755 760 765
Gln Gly Asp Ser Gly Gly Pro Leu Met Cys Glu Arg Pro Gly Glu Ser
770 775 780
Trp Val Val Tyr Gly Val Thr Ser Trp Gly Tyr Gly Cys Gly Val Lys
785 790 795 800
Asp Ser Pro Gly Val Tyr Thr Lys Val Ser Ala Phe Val Pro Trp Ile
805 810 815
Lys Ser Val Thr Lys Leu
820

000000 210/4160